

ABSTRACT OF THE DISCLOSURE

A reduced gain thrust control valve for use in a rocket engine has a housing with a fluid inlet and a piston and cylinder unit for controlling a fluid output of the control valve. The fluid inlet is formed by at least one metering element formed in the housing. The at least one metering element has a rectangular portion for producing improved control stability, a tee and slot portion for controlling thrust during a start transient engine phase, and a fixed turbine bypass portion for accommodating a retainer. The retainer incorporates at least one fluid channel so as to produce repeatable fixed bypass flow metering.